

Name	Secretin acetate
Cat #	PP-1670
Size	1 g, 10 g, 100, g and bulk custom packages
CAS#	17034-35-4
Mol. Mass	3055.47
Formula	C130H220N44O41
Sequence	H-His-Ser-Asp-Gly-Thr-Phe-Thr-Ser-Glu-Leu-Ser-Arg-Leu-Arg-Asp-Ser-Ala-Arg-Leu-Gln-Arg-Leu-Leu-Gln-Gly-Leu-Val-NH ₂
Purity	>95%

Secretin is a peptide hormone produced in the S cells of the duodenum in the crypts of Lieberkühn. Its primary effect is to regulate the pH of the duodenal contents via the control of gastric acid secretion and buffering with bicarbonate.

Secretin stimulates the secretion of bile from the liver. It also increases watery bicarbonate solution from pancreatic duct epithelium. Pancreatic acinar cells have secretin receptors in their plasma membrane. As secretin binds to these receptors, it stimulates adenylate cyclase activity and converts ATP to cyclic AMP.[12] Cyclic AMP acts as second messenger in intracellular signal transduction and leads to increase in release of watery carbonate. It is known to promote the normal growth and maintenance of the pancreas.

Secretin increases water and bicarbonate secretion from duodenal Brunner's glands in order to buffer the incoming protons of the acidic chyme.[13] It also enhances the effects of cholecystokinin to induce the secretion of digestive enzymes and bile from pancreas and gallbladder, respectively.

It counteracts blood glucose concentration spikes by triggering increased insulin release from pancreas, following oral glucose intake.<[14]

It also reduces acid secretion from the stomach by inhibiting gastrin release from G cells.[citation needed] This helps neutralize the pH of the digestive products entering the duodenum from the stomach, as digestive enzymes from the pancreas (eg, pancreatic amylase and pancreatic lipase) function optimally at neutral pH.[citation needed]

In addition, secretin stimulates pepsin secretion which can help break down proteins in food digestion. It also stimulates release of glucagon, pancreatic polypeptide and somatostatin.